Application No. 10/064,607 Docket No. 17MY-7089 Amendment dated July 29, 2003 Reply to Office Action of March 31, 2003

## **REMARKS**

In the Office Action, the Examiner reviewed claims 1-20 of the above-identified US Patent Application, with the result that claims 1, 2, 4-10, 12-16 and 18-20 were rejected under 35 USC §103 in view of U.S. Patent No. 4,810,467 to Wood et al. (Wood), claims 1-10, 12-16, and 18-20 were rejected under 35 USC §103 in view of U.S. Patent No. 4,039,330 to Shaw, and claims 1-20 were rejected under 35 USC §103 in view of U.S. Patent No. 6,258,317 to Smith et al. (Smith). In response, Applicants have amended the specification and claims as set forth above. More particularly:

The specification has been amended to correct a typographical error.

Independent claims 1, 9 and 16 have been amended use the transitional phrase "consisting of" instead of "consisting essentially of."

Independent claims 1 and 9 have been further amended to require a tantalum content of less than 0.4 weight percent, and dependent claims 3 and 10 have been amended to require a tantalum content of less than 0.1 weight percent. Support for these amendments can be found in Applicant's specification at Table I, where tantalum contents of 0.01 and 0.09 weight percent are reported.

Independent claim 16 and dependent claims 4 and 11 have been amended to require that tantalum is present as an incidental impurity (claim 16) or the alloy is "essentially free" of tantalum (claims 4 and 11). Support for these amendments can be found in Applicant's specification at paragraph [0007] where "essentially absent" is

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defined as "only impurity levels are present."

Applicants believe that the above amendments do not present new matter.

Favorable reconsideration and allowance of claims 1-20 are respectfully requested in view of the above amendments and the following remarks.

## Rejections under 35 USC §103

Independent claims 1, 9 and 16 and their dependent claims 2-8, 10-15, and 17-20 were rejected under 35 USC §103(a) as being unpatentable over Wood, Shaw and Smith on the basis of overlapping ranges, and on the basis that Applicants' recitation of a tantalum content of "less than 0.5%" and "about 0.0%" did not patentably distinguish Applicants' claimed alloy over Wood and Shaw. Applicants respectfully traverse each of these rejections in view of the claims as amended and the following comments.

As now amended, Applicants' independent claims require an alloy that "consists of" various elements, optionally tantalum in an amount of less than 0.4%.

Under the first and second §103 rejections, the Examiner explained that Wood and Shaw disclose similar nickel-base alloys, but with minimum tantalum contents of 0.5 weight percent. The Examiner equated a tantalum content of "about 0.0 weight percent" as not being patentably distinguishable from the lower limit of 0.5 weight percent disclosed by Wood and Shaw, emphasizing that Applicants' use of the

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term "about" reads on the minimum tantalum contents of 0.5% disclosed by Wood and Shaw. Applicants' independent claims 1 and 9 now require a tantalum content of less than 0.4%, while dependent claims 3 and 10 now require a tantalum content of less than 0.1%, and independent claim 16 and dependent claims 4 and 11 now require tantalum at impurity levels. Nothing in Wood or Shaw teaches or suggests that their alloys would be acceptable with contents of less than 0.5% tantalum, much less at levels below 0.4% or below 0.1%. Furthermore,

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the *prior art* suggested the desirability of the modification. (Emphasis added.)

In re Fritch, 23 USPQ2D 1780, 1783-1784 (Fed. Cir. 1992).

Consequently, the courts require that the <u>prior art</u> must suggest the desirability of reducing the tantalum contents of Wood and Shaw to something less than 0.4%.

However, it is only in light of Applicant's teachings that tantalum contents of less than 0.4% and even below 0.1% may appear desirable or even feasible.

For all of the above reasons, Applicants respectfully request withdrawal of the first and second rejections of the claims under 35 USC §103.

Under the third §103 rejection, the Examiner explained that Smith discloses a similar nickel-base alloy containing the same elements in amounts that overlap those

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recited in Applicants' claims. However, Smith requires molybdenum in an amount of at least 2.4 weight percent, which is now excluded by Applicants's use of the transitional phrase "consisting of." Therefore, Applicants also respectfully request withdrawal of the third rejection of the claims under 35 USC §103.

Closing

In view of the above, Applicants believe that all rejections to their claims have been overcome, and that the claims define patentable novelty over all the references, alone or in combination, of record. It is therefore respectfully requested that this patent application be given favorable reconsideration.

Should the Examiner have any questions with respect to any matter now of record, Applicants' representative may be reached at (219) 462-4999.

Respectfully submitted,

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